

## STEAM TURBINES

Where the blade stresses are too high for convenient use of phosphor bronze, steel blades are adopted, milled out of the solid bar. The blade roots are either dovetailed (fig. 30) and fit into corresponding slots in the

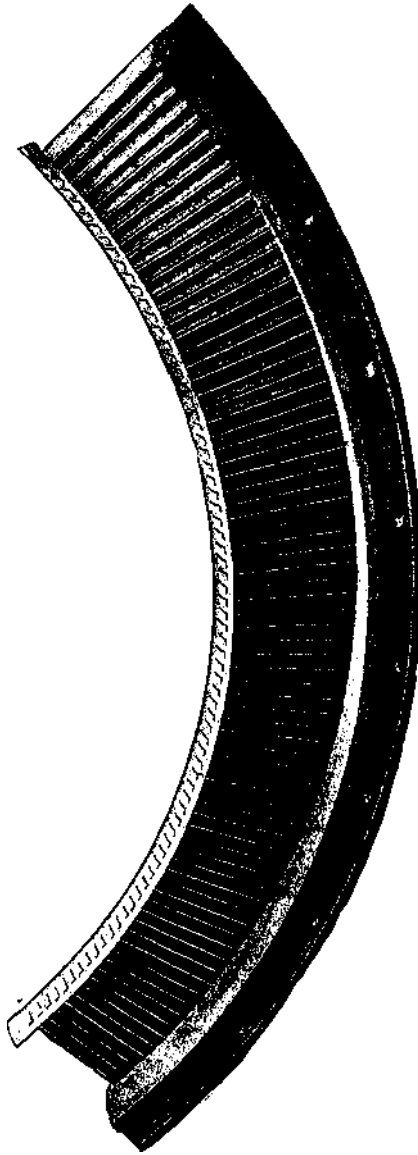


Fig. 32.—Section of Guide Blades

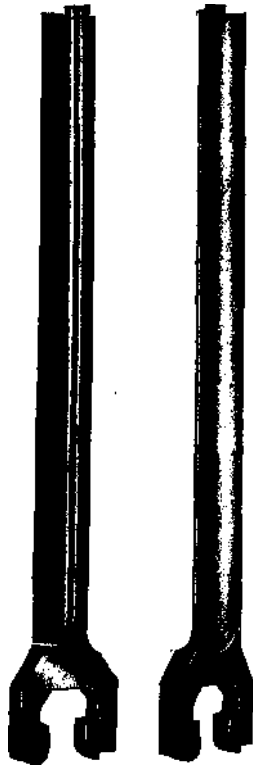


Fig. 31.—Moving  
Blades with  
Dovetails,  
for Curtis Turbines.

rim of the disc, or where the disc stresses are such as to make it preferable to reduce the rim thickness to a minimum, then the blade roots are milled with an inverted dovetail as shown in fig. 31. Fig. 32 shows a section of guide blades to reverse the direction of motion of the steam between velocity stages. These blades are made in a similar manner to the running blades, and are fitted into a cast-iron ring which is bolted to the casing or the nozzle plate. The arc covered by the guide blades is practically equal to that covered by the first stage nozzles, so that where the nozzles are confined to the top half of the casing the same applies to the guide-blade ring. The British Thomson-Houston Company adopt flexible claw-type coup-